ABSTRACT

SYSTEM FOR EQUILIBRATING AN ENERGY STORAGE DEVICE

In an energy storage device comprising a series network of n storage elements $C_1, \ldots C_n$, able to provide a continuous voltage across its terminals, a system for equilibrating the elements is envisaged comprising a plurality of charge transfer modules $M_{i,j}$, each module $M_{i,j}$ ensuring a bidirectional transfer of charge linear to first order between two storage elements C_i and C_j of the said network. Each energy storage element is connected to p modules, $p \le n-1$, each of the p modules pairing the said element with another element of the network. The time required for reequilibrating is thus reduced.

FIGURE 5